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Jaap De Baan

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STRASBURGER & PRICE, LLP
901 MAIN STREET
SUITE 4400
DALLAS, TX 75202

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SOTELO, JESUS D

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAAP DE BAAN, RIES UITTENBOGAARD, and
LOUIS COULOMB

Appeal 2008-2091
Application 10/759,651
Technology Center 3600

Decided: August 12, 2008

Before MURRIEL E. CRAWFORD, JENNIFER D. BAHR, and JOHN C.
KERINS *Administrative Patent Judges*.

BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Jaap De Baan et al. (Appellants) appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1, 2, 4, and 5. Claim 3 has been canceled. We have jurisdiction over this appeal under 35 U.S.C. § 6 (2002).

THE INVENTION

The Appellants' invention is drawn towards a catenary anchor leg mooring (CALM) system 100 having a cylindrical hull portion 120 which renders the center of gravity of the system 100 to be located below the water line (§ 11). To further lower the center of gravity, the system 100 includes ballast material 155 disposed in a compartment 156 at the bottom of the cylindrical hull portion 120 (§ 12 and fig. 2).

Claim 1, the only independent claim, reads as follows:

1. A system for stabilizing a floating catenary anchor leg mooring system used in the production of oil from subsea reservoirs comprising:
 - a non-submersible hollow buoy assembly for continuous floatation on the sea surface;
 - said non-submersible hollow floating buoy assembly including a cylindrical hull portion having a center of gravity which is below the sea surface;
 - said cylindrical hull portion further including a ballast compartment having a portion below the sea surface;
 - said ballast compartment being constructed and arranged to adjust the natural pitch and roll periods of said non-submersible hollow buoy assembly to reduce pitch and roll in response to wind and wave forces;
 - means for providing a path for oil to travel from the subsea reservoirs to a tanker.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Grundy	US 4,501,525	Feb. 26, 1985
Corona	US 5,431,589	Jul. 11, 1995

Claim 1 stands rejected under 35 U.S.C. § 102(b) as anticipated by Corona.

Claims 2, 4, and 5 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Corona in view of Grundy.

The Examiner provides reasoning in support of the rejections in the Answer (mailed June 22, 2007). The Appellants present opposing arguments in the Appeal Brief (filed February 6, 2007) and the Reply Brief (filed August 20, 2007).

OPINION

The Examiner explains where the elements of claim 1 are disclosed in Corona. The Examiner found that Corona discloses a catenary anchor leg mooring system including a hollow buoy 16 adapted to float in a non-submersible condition and having a cylindrical hull portion with a center of gravity located below the water line, a ballast compartment 90 located below the sea surface, and means 50 for providing a path for oil to travel from underwater reservoirs (Ans. 3).

The Appellants' main argument in the instant appeal is that Corona does not disclose a "non-submersible" hollow buoy that is designed for "continuous flotation" (App. Br. 8). Specifically, the Appellants argue that because the buoy of Corona is intermittently submerged to a location

beneath the sea surface, it cannot be considered to be a “non-submersible” buoy designed for “continuous flotation” (App. Br. 8).

In response, the Examiner takes the position that the limitations “non-submersible” and “for continuous flotation” are merely “elements of intended use” and that the buoy of Corona “can be used in a ‘non submersible, continuously floating’ condition” (Ans. 6).

For the reasons expressed below in our new grounds of rejection, the disclosure of the instant application does not clearly convey to one ordinarily skilled in the art that the Appellants were in possession of a “non-submersible” buoy at the time the application was filed. Furthermore, the metes and bounds of the limitation “non-submersible,” as used in claim 1, have not been sufficiently defined to permit a determination as to whether or not the buoy of Corona is a “non-submersible” buoy.

We shall not sustain the Examiner’s rejection of claim 1 under 35 U.S.C. § 102(b) as anticipated by Corona, and the rejection of claims 2, 4, and 5 under 35 U.S.C. § 103(a) as unpatentable over Corona in view of Grundy. For the reasons expressed below, claim 1, and claims 2, 4, and 5 depending from claim 1, are indefinite. Therefore, the prior art rejections must fall because they necessarily are based on speculative assumption as to the meaning of the claim. *See In re Steele*, 305 F.2d 859, 862-63 (CCPA 1962). It should be understood, however, that our decision in this regard is based solely on the indefiniteness of the claimed subject matter, and does not reflect on the adequacy of the prior art evidence applied in support of the rejections.

NEW GROUNDS OF REJECTION

We make the following new grounds of rejection pursuant to 37 C.F.R. § 41.50(b).

Rejection based upon a lack of written description

Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. To satisfy the written description requirement, the disclosure must convey with reasonable clarity to skilled artisans that the Appellants were in possession of the claimed invention as of the filing date. *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991). “The invention is, for purposes of the ‘written description’ inquiry, *whatever is now claimed.*” *Id.*

The issue before us is whether the disclosure in the application as originally filed reasonably supports a “non-submersible” buoy, as now required by claim 1¹. At the outset, we note that the Appellants have not identified, nor can we find, disclosure in the Specification that the buoy of the claimed invention is “non-submersible.” Furthermore, when describing the Appellants’ invention in the Appeal Brief (under the heading “Summary of Claimed Subject Matter”), the Appellants never describe the buoy as a “non-submersible” buoy (App. Br. 3-5). Nonetheless, the absence of a recited term in the Specification is not dispositive so long as the disclosure reasonably supports the limitation. The drawings in an application can be relied upon to show that an inventor was in possession of the claimed

¹ The “non-submersible” limitation was added to claim 1 in an amendment entered with the request for continued examination (RCE) filed July 29, 2005.

invention as of the filing date. *See Vas-Cath*, 935 F.2d at 1563-64 (“[D]rawings alone may be sufficient to provide the ‘written description of the invention’ required by § 112, first paragraph.”) However, we do not find that the drawings in the instant application support the limitation of a “non-submersible” buoy. Both Figures 2 and 3 show the buoy floating but provide no indication as to whether it is “non-submersible.” Although the buoy may be floating in the condition shown in Figures 2 and 3, under a different condition it may become submersible. For example, the Appellants’ buoy floats when its weight is balanced by the buoyancy force. However, if the weight were to increase (*e.g.* adding a heavier ballast material or flooding the buoy with water) such that it would be larger than the buoyancy force, the Appellants’ buoy would tend to submerge. At most, Figures 2 and 3 in the instant application support the limitation of a “floating” buoy, but not a “non-submersible” buoy.

In conclusion, we find that neither the Appellants’ Specification nor the Drawings clearly convey to one ordinarily skilled in the art a “non-submersible” buoy. Therefore, claim 1, and claims 2, 4, and 5 depending from claim 1, fail to comply with the written description requirement.

Indefiniteness rejection

Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the invention.

The test for definiteness under 35 U.S.C. § 112, second paragraph, is whether “those skilled in the art would understand what is claimed when the claim is read in light of the specification.” *Orthokinetics, Inc. v. Safety*

Travel Chairs, Inc., 806 F.2d 1565, 1576 (Fed. Cir. 1986) (citations omitted). A claim may be invalid for indefiniteness if it is "insolubly ambiguous" and not "amenable to construction." *Exxon Research & Eng'g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001). Even if a claim term's definition can be reduced to words, the claim is still indefinite if a person of ordinary skill in the art cannot translate the definition into meaningfully precise claim scope. *Halliburton Energy Services, Inc. v. M-I LLC*, 514 F.3d 1244, 1251 (Fed. Cir. 2008). While patentees are allowed to claim their inventions broadly, they must do so in a way that distinctly identifies the boundaries of their claims. *Id.* at 1253.

The disclosure in the instant application does not include a definition of the term "non-submersible." The ordinary and customary meaning of the term "submersible" is "capable of being submerged." (*Merriam Webster's Collegiate Dictionary* 1172 (Tenth Ed. 1997)). Hence, a "non-submersible" buoy is a buoy that is not capable of being submerged. However, as discussed above, when the weight of a buoy is increased (adding a heavier ballast material or flooding the buoy with water) such as to overcome the buoyancy force, the "non-submersible" buoy becomes "submersible." Therefore, the buoy can be characterized as both "submersible" and "non-submersible" depending on whether or not its weight overcomes the buoyancy force.

Corona provides an excellent illustration of the ambiguity of the terminology "non-submersible" as used by the Appellants. Corona's buoy is buoyant and continuously floating while operational to transfer fluids to or from tankers, as illustrated in solid lines in Figure 1, but is capable of being submerged to the position shown in dashed lines in Figure 1 when not in

use, to protect it from severe ice conditions by flooding the ballast compartments to reduce its buoyancy and winching or paying out the chain legs with respect to the buoy (col. 4, ll. 3-35). If “non-submersible” is interpreted to mean incapable of being submerged under any conditions, it is difficult to imagine any buoy, including Appellants’ satisfying this limitation. Strictly speaking, Corona’s buoy can be submerged and thus appears to be, and in fact is, characterized as, “submersible” (Title; col. 1, ll. 6-7) under such an interpretation. On the other hand, with the water flushed from the ballast compartments and the windlasses properly set, Corona’s buoy increases in buoyancy and rises to its floating position shown in solid lines in Figure 1, where it will continuously float. If “non-submersible” is interpreted to mean buoyant, Corona’s buoy would appear to satisfy this limitation in this buoyant state.

In light of the above, we conclude that claim 1, which includes the “non-submersible” limitation, and claims 2, 4, and 5 depending from claim 1, are "insolubly ambiguous" and are not "amenable to construction."

DECISION

The decision of the Examiner to reject claim 1 under 35 U.S.C. § 102(e) as anticipated by Corona is reversed.

The decision of the Examiner to reject claims 2, 4, and 5 under 35 U.S.C. § 103(a) as unpatentable over Corona in view of Grundy is reversed.

We enter new grounds of rejection of claims 1, 2, 4, and 5 under 35 U.S.C. § 112, first and second paragraphs.

This decision contains new grounds of rejection pursuant to 37 C.F.R. § 41.50(b). 37 C.F.R. § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of the appeal as to the rejected claims:

(1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) Request rehearing. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

REVERSED; 37 C.F.R. § 41.50(b)

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LV:

STRASBURGER & PRICE, LLP
901 MAIN STREET
SUITE 4400
DALLAS, TX 75202